

Availability and use of woody fodder in the diet of small ruminants in the silvo-pastoral zone of Senegal

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Introduction

- Extensive Sahelian livestock systems, woody fodder accounts for 40-50% of dry season livestock feed.
- The perception of pastoral communities on the use of woody fodder to improve the diet of small ruminants in the silvopastoral zone



Fig.1: Consumption of *Balanites aegyptiaca* by small ruminants during the lean season in the silvopastoral zone of Senegal.

Methods



- Date: November-December 2021
 - Duration: 20 days
 - Animals: 4 sheep
 - Study station: Dahra Zootechnical Research Centre of the Senegalese Institute for Agricultural Research (ISRA-CRZ/Dahra).
- The trial consisted of three phases:
- Adaptation phase with the basic diet (4 days);
 - Period 1 with fresh leaves (5 days);
 - Period 2 with dry leaves (5 days) and a transition phase (4 days)

Palatability trial

Acknowledgement

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www.sustainsahel.net



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Results & Discussion

Agropastoralists' perceptions

81% of the surveyed farmers use the available woody fodder species

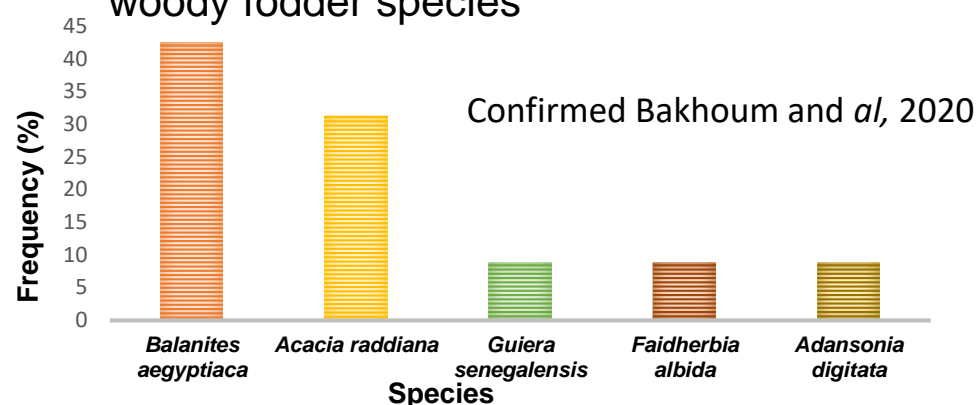


Fig.2: Woody species most consumed by small ruminants according to agropastoralists

Animal preference on station



Table 1: Consumption time (in seconds) of dried leaves

| Sheep/ Feeder | Ac | Ad | Ba | Gu | Kh | Total |
|------------------|-------|------|-------|----|-----|-------|
| A | 3377 | 719 | 4103 | 0 | 0 | 8199 |
| B | 3717 | 339 | 3230 | 0 | 88 | 7374 |
| C | 3762 | 115 | 3802 | 0 | 62 | 7741 |
| D | 7160 | 0 | 4133 | 0 | 0 | 11293 |
| Total | 18016 | 1173 | 15268 | 0 | 150 | 34607 |

Acacia raddiana (Ac), *Adansonia digitata* (Ad), *Balanites aegyptiaca* (Ba), *Guiera senegalensis* (Gu), *Khaya senegalensis* (Kh)

- Highly significant difference in sheep's preference of leaves ($p < 0.001$) for both the fresh leaf and the air-dried leaf,
- Acacia raddiana* and *Balanites aegyptiaca* were the most consumed forage species by the animals in fresh and dry stage

Conclusion

A total of 16 woody fodder species available in the Ouarkhokh's commune are used for small ruminants through the ethnobotanical survey.

Thus, the experimental results confirm farmers' stated preferences of sheep for most preferred shrub foliage.

References

Bakhoun A., Sarr O., Ngom D., Diatta S., Ickowicz A., 2020. Woody fodder uses and pastoral practices in the rural community of Tessekere, Ferlo, Northern Senegal. *Rev. Elev. Med. Vet. Pays Trop.*, 73 (3): 191-198, doi: 10.19182/remvt.31890



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